

DETAILED ACTION

Claim Objections

1. Claim 1-9 are objected to because of the following informalities:

For claim 1, it appears that applicant meant “for” instead of “fox” in line 3.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 2, 5-8, 13, rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For claims 2, the limitation “the selected services” has no antecedent basis.

For claims 5, the limitation “said selected service” has no antecedent basis.

For claims 13, the limitation “the said time-slot” has no antecedent basis.

Dependent claims are rejected on the basis of the above claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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3. Claim 1-7, 9-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Sarkar et al. (WO 01/60104)

For claim 1, Sarkar discloses a method of creating signalling information (see fig 6; 510-560) relating to one or more available services (see page 14 line 28 through page 16 lines 20 “broadcast category...categories of broadcast messages to be transmitted...categories of broadcasts”) in a network (see fig 1), the method comprising the steps of: defining a service-indicator-for one or-more of the services (see page 14 line 28 through page 16 lines 20 “broadcast category...categories of broadcast messages to be transmitted...categories of broadcasts” and fig 6; 520-540);

formulating the service indicator into a unique indicator having a predetermined format (see page 14 line 28 through page 16 lines 20 through page 17 “supplies the determined categories to a predefined hashing function...hashing function produces output...broadcast indicator bit stream...output of the hashing function” and fig 6; 520-560 including the description of this drawing);

mapping the unique indicator into one time-slot (see page 16 lines 10 through page 17 “broadcast indicator bit stream is transmitted on a ...quick paging channel slot” and page 4 lines 23-33 “slots of a predetermined duration called full paging slots....first N bits of the quick paging slot comprise the broadcast indicator bit stream” and fig 5, fig 6; 520-540) of a signalling channel (see page 4 lines 23-33 “full pagging channel” and page 16 lines 10-33 “quick paging channel” and fig 5).

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For claim 2, wherein the service indicator defining step includes one or more of the following: using at least one service identifier relating to the one or more services (see page 14 line 28 through page 16 lines 20 through page 17 “supplies the determined categories to a predefined hashing function...hashing function produces output...broadcast indicator bit stream...output of the hashing function” and fig 6; 520-540); using one or more identification data items for each of the selected services (see page 14 line 28 through page 16 lines 20 through page 17 “supplies the determined categories to a predefined hashing function...hashing function produces output...broadcast indicator bit stream...output of the hashing function” and fig 6; 520-540) ; using one or more data items identifying at least one user terminal having access to the broadcast network (see page 17 lines 29 through page 18 line 15 “remote station having an IMS-S...” and page page 20 line 20 through 21 line 10 “incoming page for a remote station having an IMSI_S that hashes to this particular bit” and page 16 lines 20 through page 17 line 5 "IMSI_S" and page 9 lines 1-20 “IMSI”); and/or using one or more data items relating to transmission parameters (see page 17 lines 29 through page 18 line 15 “remote station having an IMS-S...” and page page 20 line 20 through 21 line 10 “incoming page for a remote station having an IMSI_S that hashes to this particular bit” and page 16 lines 20 through page 17 line 5 "IMSI_S" and page 9 lines 1-20 “IMSI”) of said network (see fig 1).

For claim 3, selecting a hash value calculation scheme (see page 14 line 28 through page 16 lines 20 through page 17 “supplies the determined categories to a predefined hashing

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function...hashing function produces output...broadcast indicator bit stream...output of the hashing function” and fig 6; 520-540); and

calculating a hash value for the service indicator (see page 14 line 28 through page 16 lines 20 through page 17 “supplies the determined categories to a predefined hashing function...hashing function produces output...broadcast indicator bit stream...output of the hashing function” and fig 6; 520-540).

For claim 4, Sarkar discloses selecting a hash value calculation scheme (see page 14 line 28 through page 16 lines 20 through page 17 “supplies the determined categories to a predefined hashing function...hashing function produces output...broadcast indicator bit stream...output of the hashing function” and fig 6; 520-540); and

calculating a hash value for the unique indicator (see page 14 line 28 through page 16 lines 20 through page 17 “supplies the determined categories to a predefined hashing function...hashing function produces output...broadcast indicator bit stream...output of the hashing function” and fig 6; 520-540).

For claim 5, Sarkar discloses creating a notification relating to said selected service (see page 14 line 28 through page 16 lines 20 through page 17 “supplies the determined categories to a predefined hashing function...hashing function produces output...broadcast indicator bit stream...output of the hashing function” and fig 6; 520-540), and transmitting the notification during the time-slot (see page 16 lines 10 through page 17 "broadcast indicator bit stream is transmitted on a ...quick paging channel slot"

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and page 4 lines 23-33 “slots of a predetermined duration called full paging slots...first N bits of the quick paging slot comprise the broadcast indicator bit stream” and fig 5, fig 6; 520-540).

For claim 6, Sarkar discloses wherein the notification (see page 14 line 28 through page 16 lines 20 through page 17 “supplies the determined categories to a predefined hashing function...hashing function produces output...broadcast indicator bit stream...output of the hashing function” and fig 6; 520-540) comprises identification of one or more channels of the broadcast network transmitting the selected service (see page 27 line 1-10 “receive and decode an encoded bit stream that follows said broadcast indicator bitstream” ; and page 18 line 25 through page 19 line 15 “decoding messages of the channel carrying the broadcast messages...” page 13 line 1-10 “notification indicators are one or more indicator...to indicate to a remote station whether it needs to examine the first channel for broadcast channel”).

For claim 7, Sarkar discloses wherein the data item identifying said at least one user terminal is an International Mobile Subscriber Identity (see page 17 lines 29 through page 18 line 15 “remote station having an IMS-S...” and page 20 line 20 through 21 line 10 “incoming page for a remote station having an IMSI_S that hashes to this particular bit” and page 16 lines 20 through page 17 line 5 "IMSI_S" and page 9 lines 1-20 “IMSI”).

For claim 9, Sarkar discloses wherein the network (see fig 1) is a broadcasting network (and page 14 lines 15-33 “broadcast...broadcast messages to be transmitted’ and page 22 lines 1-12 “the remote station would monitor the appropriate channel...base upon the contents of the broadcast pointer”).

For claim 10, Sarkar discloses A communications device (see page 19 lines 15-30 “remote station” and page 22 line 14-20 “remote station”) comprising:
first receiving means (see page 19 lines 15-30 “remote station”; page 22 line 14-20 “remote station” fig. 10; 1010-1018) for receiving broadcast transmissions comprising one or more services (page 12 lines 20-30 “receive broadcast databurst messages” page 14 lines 15-33 “broadcast...broadcast messages to be transmitted’ ; page 18 line 25-32 “decoding messages of the channel carrying the broadcast messages”; page 27 claims 1-2 “method of receiving broadcast messages...”);
second receiving means (see page 19 lines 15-30 “remote station” and fig 10; 1010-1018; page 4 lines 23-33 “full paging channel” and page 16 lines 10-33 “quick paging channel” and fig 5) for receiving signalling information (see page 19 lines 25 through page 20 line 20 “remote station determines the location of the broadcast indicator bits it needs to monitored.....enable the RF unit to successfully monitor ..indicator bits”) on a signalling channel (see page 4 lines 23-33 “full paging channel” and page 16 lines 10-33 “quick paging channel” and fig 5);
means for controlling the first receiving means (see fig. 10; 1010-1018), wherein the first receiving means (see page 19 lines 15-30 “remote station” and fig. 10) is enabled for

receiving one or more services in the broadcast transmission (see page 21 line 22 through page 22 line 10 “GPMs are monitored ...opening a dedicated communication link...remote state would monitor the appropriate channel at the appropriate time based upon the contents of the broadcast pointer”) upon received signalling information relating to said one or more services (see fig 7. 720-770 and page 21 line 22 through page 22 line 10 “GPMs are monitored ...opening a dedicated communication link...remote state would monitor the appropriate channel at the appropriate time based upon the contents of the broadcast pointer”) by the second receiving means (see page 19 lines 15-30 “remote station” and fig 10; 1010-1018).

For claim 11, Sarkar discloses wherein the second receiving means (see page 19 lines 15-30 “remote station” and fig 10; 1010-1018) for receiving signalling information (see page 19 lines 25 through page 20 line 20 “remote station determines the location of the broadcast indicator bits it needs to monitored.....enable the RF unit to successfully monitor ..indicator bits” and fig 7; 710-780) is enabled to receive signalling information in a signalling channel during a specified time-slot (see fig 7; 710-750 and page 19 line 25 through page 20 line 25 “determine the location of the broadcast indicator bits it needs to monitor...remote station waits until a predetermined time before it needs to enable the RF unit...monitor...RF unit turned on...” ; page 22 lines 14-33 "slotted sleep mode...periodically activates RF receiver...process... modified quick paging channel”; page 1 claim 1 "waking up on a periodic basis to receive one or more bits..." and see page 16 lines 10 through page 17 "broadcast indicator bit stream is transmitted on a ...quick

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paging channel slot"; and and page 4 lines 23-33 "slots of a predetermined duration called full paging slots....first N bits of the quick paging slot comprise the broadcast indicator bit stream").

For claim 12, Sarkar discloses wherein the second receiving means s (see page 19 lines 15-30 "remote station" and fig 10; 1010-1018) for receiving signalling information is enabled periodically (see fig 7; 710-750 and page 19 line 25 through page 20 line 25 "determine the location of the broadcast indicator bits it needs to monitor...remote station waits until a predetermined time before it needs to enable the RF unit...monitor...RF unit turned on..." ; page 22 lines 14-33 "slotted sleep mode... periodically activates RF receiver...process... modified quick paging channel"; page 1 claim 1 "waking up on a periodic basis to receive one or more bits..." and see page 16 lines 10 through page 17 "broadcast indicator bit stream is transmitted on a ...quick paging channel slot"; and and page 4 lines 23-33 "slots of a predetermined duration called full paging slots....first N bits of the quick paging slot comprise the broadcast indicator bit stream") to receive signalling information see page 19 lines 25 through page 20 line 20 "remote station determines the location of the broadcast indicator bits it needs to monitored.....enable the RF unit to successfully monitor ..indicator bits" and fig 7; 710-780) in a signalling channel (see page 4 lines 23-33 "full pagging channel" and page 16 lines 10-33 "quick paging channel" and fig 5) during a time-slot (see fig 7; 710-750 and page 19 line 25 through page 20 line 25 "determine the location of the broadcast indicator bits it needs to monitor...remote station waits until a predetermined time before it needs to enable the

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RF unit...monitor...RF unit turned on..." ; page 22 lines 14-33 "slotted sleep mode... periodically activates RF receiver...process... modified quick paging channel"; page 1 claim 1 "waking up on a periodic basis to receive one or more bits..." and see page 16 lines 10 through page 17 "broadcast indicator bit stream is transmitted on a ...quick paging channel slot"; and and page 4 lines 23-33 "slots of a predetermined duration called full paging slots....first N bits of the quick paging slot comprise the broadcast indicator bit stream").

For claim 13, Sarkar discloses further comprising means for generating an indication of the occurrence (see fig 7; 710-750 and page 19 line 25 through page 20 line 25 "determine the location of the broadcast indicator bits it needs to monitor...remote station waits until a predetermined time before it needs to enable the RF unit...monitor...RF unit turned on..." ; page 22 lines 14-33 "slotted sleep mode... periodically activates RF receiver...process... modified quick paging channel"; page 1 claim 1 "waking up on a periodic basis to receive one or more bits..." and see page 16 lines 10 through page 17 "broadcast indicator bit stream is transmitted on a ...quick paging channel slot"; and and page 4 lines 23-33 "slots of a predetermined duration called full paging slots....first N bits of the quick paging slot comprise the broadcast indicator bit stream") of the said time slot (see fig 7; 710-750).

Claim Rejections - 35 USC § 103

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sarkar et al. (WO 01/60104) in view of Sinnarajah et al (US 2003/0114177)

For claim 8, Sarkar discloses the claimed invention as described in paragraph 3.

Sarkar is silent about:

For claim 8, the data item relating to the transmission parameters of the network is an identification for a network cell.

Sinnarajah from the same or similar field of endeavor discloses a communication network with the following features:

For claim 8, Sinnarajah discloses the data item relating to the transmission parameters of the network is an identification for a network cell (see section 0060 "base station...network identification").

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It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Sarkar by using the features, as taught by Sinnarajah, in order to provide an efficient use of bandwidth by providing subscriber station a way to consume multiple services (both in the broadcast mode and communication mode) (see Sinnarajah sections 0008-15).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KENAN CEHIC whose telephone number is (571)270-3120.

The examiner can normally be reached on Monday through Friday 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, KWANG BIN YAO can be reached on (571) 272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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